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CREATIVECULTURE: LEARNING THROUGH PLAY

Jacey Lynn Minoi

Faculty of Computer Science and Information Technology, Universiti Malaysia Sarawak
jacey@unimas.my

Fitri Suraya Mohamad, Ismail Jolhip, Nur Hasheena, Carolyne Tommy

Institute of Social Informatics and Technological Innovation, Universiti Malaysia Sarawak

Sylvester Arnab

Disruptive Media Learning Lab, Coventry University
aa8110@coventry.ac.uk

Highlights:

The CreativeCulture project has successfully implemented participatory studies that have effectively infused the CreativeCulture model to assist and accelerate learning for children especially in remote and rural locations in Sarawak. The CreativeCulture model is built upon playful and gameful design (based on the GameChangers initiatives). The localised and indigenous programme has been deployed in the rural schools in Borneo Malaysia (see <http://mycapsule.my>). A number of developed tools, innovative space; creative and educational products were built and aligned with the inclusion of Arts in Science, Technology, Engineering and Mathematics education (STEAM) and computational thinking. These products are published under the Creative Commons License.

Keywords: Gameful learning, design thinking, co-creation, STEAM

Introduction

The CreativeCulture models focuses on the potential of playful and gameful approaches for extending engagement to formal methods as an important means for promoting anytime anywhere and lifelong learning and, subsequently, for reshaping learning to better match the needs of the 21st century knowledge economies and open societies. We have explored, exploited and experimented the impact of arts, design and culture in enhancing creative thinking, problem solving and development in education through game design and computational thinking.

To support this extension, we have designed an innovative space that incorporates the philosophy of CreativeCulture. The learning space is crucial to set up the environment to facilitate the delivery, application and assessment of learning also in both formal and informal context.

Innovative products and services

These are the products and services that are offered by CreativeCulture.

Innovative collaborative space design

This space together with the flexibility of the ergonomics and movable furniture enable collaborations and convergence of those with diverse backgrounds and interests in a shared space and allows one to engage with a variety of activities. This learning space is also integrated with relevant technologies and mirrors values that scream openness, sustainability, collaboration, creativity and innovation.

Co-creation tools

Blueprint: The blueprint contains the framework of how game-based learning and game design thinking can be used as part of teaching and learning in Malaysia, intended to guide educators/teachers who are keen to begin Gamification in Learning.

Game Design Thinking tools: A number of tools can be used as to guide the thinking process and help users to identify, consider and decide each phase of GBL (game-based learning) construction, to match the requirements and needs of their own teaching contexts in a compressed timeframe.

Professional Training and Development and Business Opportunities

Game design thinking
Emphatic robotic
STEAM learning
Creative entrepreneurship

Creative Culture



Figure 1: (a. & b.) Playful learning, (c. & d.) Game design thinking workshops, (e. – h.) Co-creation products.

Background of CreativeCulture

The project is adapting the game design thinking approach of the already established Coventry University's GameChangers (<http://gamify.org.uk>) initiative, where we believe that we can use games for engaging students' learning and that teachers and students can co-create game-based resources for their teaching and learning activities. The approach has been expanded to engage teachers and primary school students in more than fifteen different rural sites in Sarawak, Malaysia, where engagement with education, in general, is very low. The UK and Malaysian team have conducted pre-feasibility and participatory workshops and studies that have informed the CreativeCulture blueprint and game-based learning resources have been co-created by the participating teachers, which were implemented in five rural schools with positive response and feedback.

Importance and significance

The project explores the importance of arts and creativity in STEAM education by looking at games as an innovative educational tool and gameplay as cultural relevance. Engagement with games is believed to be a powerful enabler to inspire how learning experience can be designed in a playful manner. The long term outcome of the CreativeCulture model is to inspire the younger generations in the impact of creativity and co-creativity in their schools and also communities. The project has contributed towards the UN SDG in relation to leveraging and scaling up the innovative approach to increase the quality of teaching and learning in Malaysia while providing access to creative and research-driven methodologies for creating innovative teaching and learning resources. The project lowers the barriers to access for innovative educational techniques and empowers teachers to be co-creators of their own instructional resources.

With the current emphasis by the new Minister of Education Malaysia to use innovative approaches like Gamification in the classroom, these co-creation tools will be useful to enable educators to be onboard with Gamification in Learning. The direct impact is seen through the rate of engagement with students, and how well they are able to comprehend and make sense of the learning content presented to them through game-based learning.

Advantages toward education and community

The CreativeCulture model is aligned with STEAM, realising the potential of these subjects by enabling true innovation and new thinking through creativity. Art and culture boost creativity and creativity leads to innovation, new thinking and moving beyond existing skills; all together are triggers and needed in the social and economic transformation. This is particularly timely as Malaysia is progressing along its journey of economic development and societal change. Since the potential is vast, CreativeCulture would make positive contributions to prosperity of society through education and economic impact to the community, which are also the indicators of the impact goals in the United Nation SDGs.

Commercial values and future works

The innovative CreativeCulture approaches in Sarawak have attracted interests from the press and major television networks: the team have been interviewed on live television (discussing 'The Future of Learning in Sarawak') and have also been involved in a television panel show that focussed on the economic and societal development of Sarawak. The project has also been showcased as a case study on the AHRC research site. Printed copies of the blueprint have been distributed to the local teachers, students, lecturers and public/private agencies including the Ministry of Education in the recent Gamification Seminar - the first seminar of its kind for the educators in Sarawak, Malaysia. The innovative collaborative space has open potential cooperation of the parties with respect to technology transfer and commercialisation, including training, organising events to create business opportunities and developing professional development and human capital development programmes.

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